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Docket No. 50-461

Document Control Desk
Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Special Report: Failure to Return Clinton Power Station Triaxial
Seismic Accelerometers to Service Within Allowed Out-of-Service Time

Dear Madam or Sir:

Clinton Power Station (CPS) Operational Requirements Manual (ORM) Section 3.2.7 "a," requires that, with one or more seismic monitoring instruments inoperable for more than 30 days, a SPECIAL REPORT be prepared and submitted to the Nuclear Regulatory Commission pursuant to Operational Requirement 6.9.2, within the next 10 days, outlining the cause of the malfunction and the plans for restoring the instrument(s) to an Operable status. On September 18, 1998, it was discovered that the triaxial seismic accelerometers had not been properly calibrated and therefore these seismic instruments were declared inoperable. To date, the triaxial seismic accelerometers have not been restored to an operable condition. This SPECIAL REPORT is being submitted pursuant to the noted ORM requirements.

On September 18, 1998, CPS was in Mode 4 (Cold Shutdown). A programmatic review was in progress to verify station surveillance procedures adequately satisfy the Technical Specifications (TS), ORM, and Offsite Dose Calculation Manual (ODCM), surveillance requirements. During this review, it was discovered that the Testing Requirements of ORM section 2.2.7, "Seismic Monitoring Instrumentation," were not being adequately performed to demonstrate that triaxial seismic accelerometers 1VT-EM001, 1VT-EM002, 1VT-EM003, 1VT-EM004, and 1VT-EM005, were capable of producing an output signal when subjected to physical motion or vibration. As a result of this discovery, the triaxial seismic accelerometers were declared inoperable and Condition Report 1-98-09-296 was generated to track this issue to resolution.

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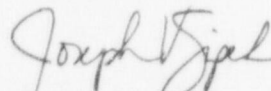
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The Seismic Monitoring System employs triaxial seismic accelerometers as ground motion sensors. When the accelerometers sense ground motion in excess of 0.02 g, the Seismic Monitoring System's recording and analyzing equipment automatically turns on. This equipment also provides input to alarms indicating an Operating Basis Earthquake (OBE) or Safe Shutdown Earthquake (SSE) condition. Testing Requirements per ORM 4.2.7.2, require a channel calibration be performed for each of the required seismic monitoring instruments at the frequencies shown in Table 4.2.7-1, "Seismic Monitoring Instrumentation." The frequency specified in Table 4.2.7-1 for the triaxial accelerometers is every 18 months. During the programmatic review of surveillance procedures, station personnel determined that the triaxial seismic monitors were not being tested as required.

The cause for this condition is attributed to an inadequate calibration procedure. Surveillance procedure CPS No. 9437.21, "Triax Time-History Accelerometer Channel Calibration," was used to calibrate the triaxial seismic accelerometers. Further evaluation has determined that performance of this procedure does not adequately demonstrate that the triaxial seismic accelerometers are capable of producing an output signal within the necessary range and accuracy when subjected to physical motion or vibration. Current testing per this procedure verifies the Seismic Monitoring System's recording and analyzing equipment is working properly, but does not verify the triaxial seismic monitors will properly respond to ground motion.

Currently, CPS does not have the necessary equipment to perform the calibration of the triaxial seismic accelerometers and this testing will be performed at an off-site facility. CPS plans to restore these instruments to an Operable status by January 8, 1999.

Sincerely yours,



Joseph V. Sipek
Director - Licensing

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cc: Regional Administrator, Region III, USNRC
NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
Illinois Department of Nuclear Safety